

Victoria Co.: Baddeck Bay, Aug. 11, 1898 (Macoun); Halfway House, Aug. 4, 1898 (Macoun). Guysborough Co.: Boylston, not common, Sept. 1890 (C. A. Hamilton).

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THE STATUS OF *ASTER LONGULUS* SHELDON

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Aster longulus Sheldon was described from plants collected in Minnesota, and is listed in Rydberg's *Flora of the Rocky Mountains* and *Flora of the Prairies and Plains* as occurring from Saskatchewan to Minnesota, Nebraska, Colorado and British Columbia. Through the kindness of Dr. C. O. Rosendahl of the University of Minnesota, I have recently been able to examine Sheldon's type. The plant is apparently a hybrid of *Aster junciformis* Rydb. and *A. puniceus* L., as indicated by the following table of critical characters:

<i>A. junciformis</i>	<i>A. longulus</i>	<i>A. puniceus</i>
Stem glabrous or pubescent in lines	Stem hispid-pubescent over the surface	Stem hispid-pubescent over the surface
Leaves slightly or not at all clasping, glabrous except on the margins and occasionally toward the tip on the upper surface; areoles formed by the veins longer than wide	Leaves slightly clasping, glabrous beneath, scabrous above; areoles as long as or longer than wide	Leaves auriculate-clasping, scabrous above, pubescent beneath; areoles as wide as or wider than long
Leaf-blades linear or lance-linear, 5-12 cm. long, 0.25-0.6 cm. wide; commonly 14-20 times as long as wide	Leaf-blades lance-linear, largest one 7.8 cm. long, 0.5 cm. wide; nearly 16 times as long as wide	Leaf-blades narrowly to broadly lanceolate or oblong-lanceolate, 7-15 cm. long, 1.0-2.5 cm. wide; 5-9 times as long as wide
Involucres 5.5-8.0 mm. high	Involucres about 6 mm. high (not fully mature)	Involucres 7-12 mm. high
Outer phyllaries shorter than the inner, not foliaceous	Outer phyllaries about as long as the inner, foliaceous	Outer phyllaries as long as or longer than the inner, foliaceous
Rays white, rarely pink or pale lilac	Rays "lilac-purple to white" (Sheldon)	Rays usually light violet-blue or purplish-blue
Style-tips with the pubescent apex $1\frac{1}{2}$ -3 times as long as the glabrous part	Style-tips with the pubescent apex about twice as long as the glabrous part	Style-tips with the pubescent apex about as long as the glabrous part

Plants similar to the type of *Aster longulus* might have been produced by a cross between *A. paniculatus* and *A. puniceus*. Nearly all the characters listed under *A. junciformis* can be found in *A. paniculatus*, which also occurs in Minnesota. In *A. paniculatus*, however, the pubescent portion of the style-tips is only 1–1½ times as long as the glabrous portion; the leaves average 12–16 times as long as wide, and the inflorescence is usually paniculate rather than corymbose or corymbose-paniculate as in the three species in the above table. It is suggestive that a second collection listed by Sheldon as *A. longulus* (near Center City, Chisago Co., Minnesota, B. C. Taylor, August, 1892) is pure *A. junciformis*. Furthermore the type specimen of *Aster longulus* was coming into flower in July, the usual time for *A. junciformis*, but a month or more too early for *A. paniculatus* or *A. puniceus* in most years. *A. longulus* may then be cited as follows:

× *Aster longulus* Sheldon, Geol. Nat. Hist. Surv. Minn. Bull. 9, Bot. Ser. II (Minn. Bot. Studies vol. 1): 18, 1894. (*A. junciformis* × *A. puniceus*.)—Apparently rare; definitely known only from the type collection, but to be expected where the ranges of the two parents overlap: from Ontario to Saskatchewan, south to Minnesota, Wisconsin, northern Indiana and New York.

Judging from Rydberg's descriptions of *Aster longulus* (calling for a plant with stem pubescent in lines only), and the range given by him, he used the name for narrow-leaved forms of *A. coerulescens* DC. and its close relative *A. laetevirens* Greene¹, one or both of which occur commonly throughout most of the range assigned to *A. longulus*.

Rydberg also reported *Aster longifolius* Lam. in the *Flora of the Prairies and Plains* as occurring inland to Minnesota and Saskatchewan, but as has been pointed out in another paper², that species is confined to the vicinity of the Atlantic coast from New England northward. Rydberg's description suggests that he included forms of *A. paniculatus* and *A. coerulescens* under *A. longifolius*.

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¹ See descriptions given by Wiegand in "Aster paniculatus and some of its relatives." *Rhodora* 35: 16–38. 1933.

² Shinnars, L. H. The genus *Aster* in Wisconsin. *Amer. Midl. Nat.* 26: 398–420. 1941.